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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/475,962	12/30/1999	FRANK JOSEPH PENNISI, JR	9D-EC-19319	7121

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EXAMINER	
VAN DOREN, BETH	

ART UNIT	PAPER NUMBER
3623	

DATE MAILED: 11/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/475,962	PENNISI, JR, FRANK JOSEPH	
	Examiner	Art Unit	
	Beth Van Doren	3623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 September 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-48* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-48* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/19/03 has been entered.

2. The following is a non-final office action in response to the request for continued examination received on 09/19/03. Claims 1, 17, and 33 have been amended. Claims 1-48 are now pending in this Application.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 1-2, 9-11, 17-18, 25-27, 33-34, and 41-43 are rejected under 35 U.S.C. 102(e) as being anticipated by Mowery et al. (U.S. 5,983,198).

5. As per claim 1, Mowery et al. teaches a method of tracking and predicting the capacity utilization of a goods delivery system, the system having at least one delivery zone comprising a geographic area comprising a zip group having at least one zip code, each delivery zone having capacity utilization matrix comprising a plurality of delivery slots, the goods delivery system providing a respective first potential delivery date, a respective order, and the number of slots the respective order will fill, said method of tracking capacity utilization comprising the steps of:

getting the respective zone maximum delivery slots and a respective number of used delivery slots for a specified period of time within the respective delivery zone (See at least figures 1, 4 and 5, column 2, lines 40-51, column 3, lines 51-54, column 4, lines 18-32,column 5, lines 50-60, column 8, lines 24-29 and 61-67, and column 9, lines 1-14, wherein a delivery zone is an area with a group neighboring customers, which would be in at least one zip code, that have tanks with usages that allow for servicing. Each customer's tank has a maximum, so the zone has a total maximum for delivery. The availability of each customer's tank is measured by delivery slots. Figure 4 specifically discloses these slot levels. Figure 1 shows the multiple tanks in a zone);

determining whether the respective order can be shipped on the first potential ship date based on the number of available delivery slots, wherein said respective number of available delivery slots is equal to said respective zone maximum minus said respective number of used slots (See figures 4 and 5, column 2, lines 40-51, column 3, lines 51-54, column 8, lines 14-29 and 61-67, and column 9, lines 1-13 and 20-25, which discuss determining whether an order can

be shipped on a potential ship date per customer is based on the available slots (levels) in the specific tank. Each customer's delivery availability is determined by the tank maximum (L_3) minus the number of used slots (L_2). See specifically figures 4 and 5. The trucks of the fleet work to minimize delivery cost based on the availability of the capacity for delivery of the customers in each zone);

returning a respective date that the respective order can be delivered (See column 9, lines 1-25, which discusses the processor determining the delivery schedule and returning schedule dates for a respective order (representing when to make each delivery) based on the delivery zone requirements); and

updating the respective capacity utilization matrix for the above specified period after the respective order has been included within said respective number of used slots (See figure 5, column 4, lines 12-45 and 56-61, column 5, lines 30-50, column 7, lines 15-33, and column 9, lines 1-13, wherein the central system is updated to reflect the scheduled delivery of the goods and the respective number of slots (levels) of capacity delivered and utilized in a period).

6. As per claim 2, Mowery et al. discloses the method wherein the step of updating the respective capacity utilization matrix further comprises the step of calculating the workload utilization and storing the result in a workload valve for each of said respective slots with the delivery zone (See figure 5, column 3, lines 35-50, column 4, lines 12-45 and 56-61, column 5, lines 30-35, 47-50, and 60-65, column 6, lines 1-13 and 20-36, column 7, lines 15-33, and column 9, lines 1-13, wherein the central system runs analysis on the data to calculate the workload utilization of the plant and this determined value of workload and usage for a respective delivery zone is stored at the central system).

7. As per claim 9, Mowery et al. teaches the method further comprising the step of predicting the probability of a future respective used slot being full based on historical over capacity conditions (See figure 5, column 2, lines 40-51, column 3, lines 50-55, column 4, lines 1-3 and 33-45, column 5, lines 36-55 and 60-65, column 6, lines 1-13 and 18-37, column 8, lines 61-67, and column 9, lines 1-7, wherein the probability of future usage and slots (levels) being full is determined using historical data, such as over capacity condition).

8. As per claim 10, Mowery et al. teaches the method wherein the step of predicting the probability of a future respective used slot being full further comprises the steps of:

obtaining the workload values for a predetermined period of time (See figure 5, column 2, lines 40-51, column 3, lines 50-55, column 4, lines 1-3 and 33-45, column 5, lines 36-55 and 60-65, column 6, lines 1-13 and 18-37, column 8, lines 61-67, and column 9, lines 1-7, wherein workload data is stored and obtained for a predetermined period of time); and

determining the probability that the next used time slot will meet an over capacity condition using a distribution function (See figure 5, column 2, lines 53-67, column 5, lines 36-55 and 60-65, and column 6, lines 1-13 and 18-37, wherein forecasting is done to determine the probability that the next used slot will meet an over capacity condition. A distribution function is used to look at the data);

wherein said over capacity condition is defined as the state when the workload value is greater than or equal to 100 percent (See figure 5, wherein the over capacity condition is defined as a workload value over 100 percent).

9. As per claim 11, Mowery et al. teaches the method further comprising the step of predicting whether the trend line of the capacity utilization is changing (See at least figure 5 and

column 5, lines 35-55 and 60-55, and column 6, lines 18-36, which discuss predicting whether the trend line of the capacity usage of a plant is changing looking at historical usage data).

10. As per claims 17-18 and 25-27, claims 17-18 and 25-27 are computer process implementations of the method of claims 1-2 and 9-11, respectively. Therefore, claims 17-18 and 25-27 are rejected using the same art relied upon in the rejection of claims 1-2 and 9-ll, respectively.

11. As per claims 33-34, claims 33-34 are method claims directed towards the method recited in claims 1-2. Therefore, claims 33-34 are rejected using the same art relied upon in the rejection of claims 1-2, respectively.

12. As per claim 41, Mowery et al. teaches a method of predicting capacity utilization of a goods delivery system, the system having at least one delivery zone, each delivery zone having a capacity utilization matrix comprising a plurality of slots each slot having an associated workload value, said method of predicting the capacity utilization comprising the steps of:

predicting the probability of a future respective used slot being full based on historical over capacity conditions (See figure 5, column 2, lines 40-51, column 3, lines 50-55, column 4, lines 1-3 and 33-45, column 5, lines 36-55 and 60-65, column 6, lines 1-13 and 18-37, column 8, lines 61-67, and column 9, lines 1-7, wherein workload data is stored and obtained for a predetermined period of time, this historical data used to predict and forecast about each customer's future slot's usage and over capacity conditions).

predicting whether the trend line if the capacity utilization is changing (See column 8, lines 30-40, which discusses looking at a trend line to predict and forecast if the capacity usage is changing. See also figure 5 and column 2, lines 53-67, column 5, lines 36-55 and 60-65, and

column 6, lines 1-13 and 18-37, wherein forecasting is done to determine the trend and identify changes).

13. As per claims 42-43, claims 42-43 are method claims directed towards the method recited in claims 10-11. Therefore, claims 42-43 are rejected using the same art relied upon in the rejection of claims 10-11, respectively.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

15. Claims 3-8, 12-16, 19-24, 28-32, 35-40, and 44-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mowery et al. (U.S. 5,983,198).

16. As per claim 3, Mowery at al. teaches the method wherein the step of calculating the capacity utilization comprises the step of calculating said respective workload value, wherein said respective workload value analyzes the last workload and the number of filled slots of the delivery versus the zip group maximum (See figure 5, column 3, lines 35-50, column 4, lines 12-45 and 56-61, column 5, lines 30-35, 47-50, and 60-65, column 6, lines 1-13 and 20-36, column 7, lines 15-33, and column 9, lines 1-13, wherein the central system runs analysis on the data to calculate the workload utilization of the plant. The capacity usage of a plant is analyzed to determine the workload of the plant. An analysis is run by the central system to determine the patterns in a plant's workload which looks at the last workloads of a previous period and the current amount put in each tank in the current period (the fraction of each tank filled on the

current delivery)). However, Mowery et al. does not expressly disclose that the relationship of the workload value is represented by the specific formula of workload value = (last workload + (number of filled slots) / (zip group maximum)).

Mowery et al. presents an algorithm that is used to determine the workload of a plant. Representing functional relationships in equation form is old and well known in the art. It would have been obvious to one of ordinary skill in the art at the time of the invention to represent this functional relationship in equation form in order to more accurately represent the functional relationship so that it is easier to comprehend and use by others. By creating a more accurate means of determining workload, the company can achieve the goal of Mowery et al. of minimizing delivery costs, see at least column 5, lines 50-60.

17. As per claim 4, Mowery et al. discloses the method further comprising the step of setting a respective capacity signal when an over capacity condition and an under capacity condition has been detected (See figures 4 and 5, column 3, lines 50-54, column 4, lines 1-3 and 18-38, column 7, lines 34-43, column 8, lines 61-67, and column 9, lines 1-13, which discusses capacity signals when an over capacity or under capacity situation has been detected. This is done for each customer).

18. As per claim 5, Mowery et al. teaches the method comprising the step of setting a respective over capacity flag after determining that the sum of a set of said preselected workload values are greater than a predetermined over capacity value over a historical time period (See column 2, lines 40-51, column 3, lines 50-55, column 4, lines 1-3 and 33-45, column 5, lines 36-55 and 60-65, column 6, lines 1-13 and 18-37, column 8, lines 61-67, and column 9, lines 1-7, wherein workload data is stored and obtained for a predetermined period of time. See figures 4

and 5, column 3, lines 50-54, column 4, lines 1-3 and 18-38, column 7, lines 34-43, column 8, lines 61-67, and column 9, lines 1-13, which discusses capacity signals (flags) when an over capacity situation has been detected in the workload (usage) historical data. Deliveries cannot be made when the set of preselected workload values for each customer are greater than an over capacity value).

19. As per claim 6, Mowery et al. teaches the method wherein the preselected overcapacity values are set for the delivery zone/capacity matrix and wherein said historical period is the previous preset period and wherein the over capacity value is a workload greater than or equal to 100 percent (See column 2, lines 40-51, column 3, lines 50-55, column 4, lines 1-3 and 33-45, column 5, lines 36-55 and 60-65, column 6, lines 1-13 and 18-37, column 8, lines 61-67, and column 9, lines 1-7, wherein workload data is stored and obtained for a predetermined period of time. See column 8, lines 23-40, wherein the past trend information is used to show patterns. See figures 4 and 5, column 3, lines 50-54, column 4, lines 1-3 and 18-38, column 7, lines 34-43, column 8, lines 61-67, and column 9, lines 1-13, which discusses capacity signals (flags) when an over capacity situation has been detected in the workload (usage) historical data. Figure 5 indicates that the workload value of over 100 percent is considered over capacity).

However, Mowery et al. does not expressly disclose that the predetermined over capacity value for the sum of selected designated days is about 700 percent or that the historical period is the previous ten days.

Mowery discusses using historic workload data for a preset period to identify patterns that are employed when making decisions concerning scheduling goods deliveries, as stated in column 8, lines 24-40. Furthermore, Mowery discloses that over capacity is considered over 100

percent, as shown in figure 5, and identifying spikes in the workload usage during preset time periods, as stated in column 6, lines 20-30. It would have been obvious to one of ordinary skill in the art at the time of the invention to choose 10 days as the preset period and to set an overcapacity sum for this time period in order to more accurately optimize the goods delivery by identifying overcapacity trends in data that are not economically beneficial to the supplier or customer. A capacity value sum of over 700 percent for 10 days would indicate that an overcapacity value occurred multiple times during the period, thus showing a bad pattern for the historic period.

20. As per claim 7, Mowery et al. teaches the method comprising the step of setting a respective under capacity flag after determining that said set of preselected workload values are each less than a predetermined under capacity value over a historical period (See column 2, lines 40-51, column 3, lines 50-55, column 4, lines 1-3 and 33-45, column 5, lines 36-55 and 60-65, column 6, lines 1-13 and 18-37, column 8, lines 61-67, and column 9, lines 1-7, wherein workload data is stored and obtained for a predetermined period of time. See figures 4 and 5, column 3, lines 50-54, column 4, lines 1-3 and 18-38, column 7, lines 34-43, column 8, lines 61-67, and column 9, lines 1-13, which discusses capacity signals (flags) when an under capacity situation has been detected in the workload (usage) historical data. Deliveries should be made when the signal indicates that certain customer's tanks are under capacity).

21. As per claim 8, Mowery et al. discloses the method wherein a preselected workload value is set for the delivery zone/capacity matrix and wherein said historical period is the previous preset period (See figures 4 and 5, column 3, lines 50-54, column 4, lines 1-3 and 18-38, column 7, lines 34-43, column 8, lines 61-67, and column 9, lines 1-13, which discusses setting workload

values for the capacity matrix/delivery zone that identify the workload as at a minimum/under capacity. See figure 5, column 2, lines 53-57, column 5, lines 10-16, 30-55, and 60-67, column 6, lines 1-7 and 20-25, column 7, lines 34-44, which teaches looking at used slot (levels) information about a specified period of days).

However, Mowery et al does not expressly disclose that the preselected workload value is less than about 50 percent and wherein the historical period is ten days.

Mowery et al. teaches that the customer is allowed to specify the minimum levels and historical changes acceptable to them, as stated in column 8, lines 24-40. It would have been obvious to one of ordinary skill in the art at the time of the invention to allow a customer to chose a workload value of less than 50 percent and a historic period of ten days in order to make the system more user friendly and adaptable to the specific needs of the user.

22. As per claim 12, Mowery et al. discloses the method wherein the step of predicting future capacity utilization further comprises the step of determining that the trend line of the capacity utilization for a first fixed period of workload values and that the trend line indicates the usage is changing (See column 8, lines 30-40, which discuss looking at trends in the data through analysis, this analysis indicating an increase in the pattern of the historical data. See column 5, lines 35-55 and 60-55, and column 6, lines 1-10 and 18-36, which discuss predicting whether the trend line of the capacity usage of a plant is changing looking at historical usage data during a fixed time period). However, Mowery et al. does not expressly disclose that the usage is increasing when the slope of the regression line for the period is greater than zero within a predetermined confidence interval.

Mowery et al. discusses using forecasting techniques to predict capacity utilization by looking at trends in past usage data to identify increases, as stated in column 8, lines 30-40. It is old and well known that a slope greater than zero indicates that a trend line is increasing in value. It is also old and well known in statistics to use confidence intervals when sampling populations of data. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize these old and well-known techniques to analyze the utilization trends in order to more accurately predict usage needs, thereby optimizing delivery schedules, minimizing supplier costs, and meeting customer needs, as stated in column 2, lines 20-25 and 30-33, column 5, lines 51-59, and column 8, lines 24-40.

23. As per claim 13, Mowery et al. discloses the method wherein the step of predicting future capacity utilization further comprises the step of determining that the trend line of the capacity utilization for a first fixed period of workload values and that the trend line indicates the usage is changing (See column 8, lines 30-40, which discuss looking at trends in the data through analysis, this analysis indicating an decrease in the pattern of the historical data. See column 5, lines 35-55 and 60-55, and column 6, lines 1-10 and 18-36, which discuss predicting whether the trend line of the capacity usage of a plant is changing looking at historical usage data during a fixed time period). However, Mowery et al. does not expressly disclose that the usage is decreasing when the slope of the regression line for the period is less than zero within a predetermined confidence interval.

Mowery et al. discusses using forecasting techniques to predict capacity utilization by looking at trends in past usage data to determine a decrease, as stated in column 8, lines 30-40. It is old and well known that a slope less than zero indicates that a trend line is decreasing in value.

It is also old and well known in statistics to use confidence intervals when sampling populations of data. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize these old and well-known techniques to analyze the utilization trends in order to more accurately predict usage needs, thereby optimizing delivery schedules, minimizing supplier costs, and meeting customer needs, as stated in column 2, lines 20-25 and 30-33, column 5, lines 51-59, and column 8, lines 24-40.

24. As per claim 14, Mowery et al. discloses the method wherein said first fixed period is seven days (See column 6, lines 1-10 and 19-25, wherein the first fixed period is seven days). However, Mowery et al. does not expressly disclose a confidence interval and that the confidence interval is about 95 percent.

Mowery et al. discusses using forecasting techniques to predict capacity utilization by looking at trends in past usage data. It is old and well known in statistics to use confidence intervals when sampling graphed populations of data. Furthermore, using a confidence interval of about 95 percent is a statistical standard. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize confidence intervals when analyzing the utilization trends in order to more accurately predict usage needs, thereby optimizing delivery schedules and minimizing supplier costs, as stated in column 2, lines 20-25 and 30-33, and column 5, lines 51-59.

25. As per claim 15, Mowery et al. discloses the method wherein said first fixed period is seven days (See column 6, lines 1-10 and 19-25, wherein the first fixed period is seven days). However, Mowery et al. does not expressly disclose a confidence interval and that the confidence interval is about 95 percent.

Mowery et al. discusses using forecasting techniques to predict capacity utilization by looking at trends in past usage data. It is old and well known in statistics to use confidence intervals when sampling graphed populations of data. Furthermore, using a confidence interval of about 95 percent is a statistical standard. It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize confidence intervals when analyzing the utilization trends in order to more accurately predict usage needs, thereby optimizing delivery schedules and minimizing supplier costs, as stated in column 2, lines 20-25 and 30-33, and column 5, lines 51-59.

26. As per claim 16, Mowery et al. teaches the method wherein said specified period of time is a preset number of days (See figure 5, column 2, lines 53-57, column 5, lines 10-16, 30-55, and 60-67, column 6, lines 1-7 and 20-25, column 7, lines 34-44, which teaches looking at used slot (levels) information about a specified period of days. Figure 5 shows 3 months worth of data). However. Mowery et al. does not expressly disclose that the preset number of days is thirty days.

Mowery et al. discusses using forecasting techniques to predict capacity utilization by looking at trends in preset time period's usage data. It would have been obvious to one of ordinary skill in the art at the time of the invention to specify a specific number of days, such as one month/thirty days, in order to in order to more accurately predict the plant's current usage

needs, thereby optimizing delivery schedules and minimizing supplier costs, as stated in column 2, lines 20-25 and 30-33, and column 5, lines 51-59.

27. As per claims 19-24 and 28-32, claims 19-23 and 28-32 are computer process implementations of the method of claims 3-8 and 12-16, respectively. Therefore, claims 19-24 and 28-32 are rejected using the same art relied upon in the rejection of claims 3-8 and 12-16, respectively.

28. As per claims 35-40, claims 35-40 are method claims directed towards the method recited in claims 3-8. Therefore, claims 35-40 are rejected using the same art relied upon in the rejection of claims 3-8, respectively.

29. As per claims 44-48, claims 44-48 are method claims directed towards the method recited in claims 12-16, respectively. Therefore, claims 44-48 are rejected using the same art relied upon in the rejection of claims 12-16, respectively.

Response to Arguments

30. Applicant's arguments with regard to the rejections based on Mowery et al. (U.S. 5,983,198) have been fully considered but they are not persuasive. In the remarks, Applicant argues that Mowery et al. does not teach or suggest (1) a delivery zone that refers to a geographic area nor the total slots the delivery vehicle can deliver, (2) getting a respective zone maximum delivery slots and a respective number of used delivery slots for a specified period of time within the respective delivery zone, (3) tracking and predicting the capacity utilization of a goods delivery system, (4) a delivery agent capacity utilization matrix, or (5) a goods delivery system having at least one delivery zone comprising a geographic area comprising a zip group having at least one zip code, each delivery zone having capacity utilization matrix comprising a plurality

of delivery slots, the goods delivery system providing a respective first potential delivery date, a respective order, and the number of slots the respective order will fill.

In response to argument (1) of the Applicant, Examiner respectfully disagrees. Examiner points out that Applicant has defined "delivery zone" in the preamble as "one delivery zone comprising a geographic area comprising a zip group having at least one zip code". Therefore, a delivery zone is a region delivered to that would have multiple zip codes and so by this definition, the earth would be a "zip group" of a "delivery zone". Mowery et al. discloses optimizing the schedule for deliveries by timing deliveries based on the available capacities/usages of neighboring tanks to each customer's tank and truck availability and usages (thus, Mowery et al. also discloses the capacity and usage of the trucks). See at least column 7, lines 34-57, column 8, lines 23-40, and column 9, lines 10-20. The multiple customer's serviced on the route, each inherently having a zip code, would constitute a delivery zone.

In response to argument (2) of the Applicant, Examiner respectfully disagrees. See at least figures 4 and 5, column 2, lines 40-51, column 3, lines 51-54, column 4, lines 18-32, column 8, lines 24-29 and 61-67, and column 9, lines 1-14, wherein each customer's tank has a maximum above which a delivery cannot occur. The levels in each customer's tank is tracked and represented in terms of the slots used for a specific period of time. When each customer's tank's level (or slots used) falls below the certain maximum, a delivery can occur to that customer. See at least figures 4 and 5 and column 9, lines 1-29. Therefore, the company making the deliveries of goods can determine per customer the number of slots in his tank able/needed to be filled and then make optimized routes per delivery zone. The company thereby knows the maximum delivery slots and the number of used slots for the zone. See at least figures 1, 4 and

5, column 2, lines 40-51, column 3, lines 51-54, column 4, lines 18-32,column 5, lines 50-60, column 8, lines 24-29 and 61-67, and column 9, lines 1-14.

In response to argument (3) of the Applicant, Examiner respectfully disagrees. Mowery et al. discloses monitoring each customer's tank levels (capacity) to determine usage rates, storing these rates in memory, and using the rates to project future capacity utilization of the tanks. See specifically column 7, lines 34-57, and at least figure 5, column 2, lines 40-51, column 3, lines 50-55, column 4, lines 1-3 and 33-45, column 5, lines 36-55 and 60-65, column 6, lines 1-13 and 18-37, column 8, lines 61-67, and column 9, lines 1-7.

In response to argument (4) of the Applicant, Examiner respectfully disagrees and points out that in the preamble Applicant recites that a "capacity utilization matrix compris[es] a plurality of delivery slots". Since Mowery et al. maintains a representation of each tank's delivery slot level (capacity) in an organized fashion in memory, Mowery et al. teaches and suggests the recited "capacity matrix". See at least figure 5, column 4, lines 12-45 and 56-61, column 5, lines 30-50, column 7, lines 15-33, and column 9, lines 1-13.

In response to argument (5) of the Applicant, Examiner respectfully disagrees. First, Examiner reminds the Applicant that a preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Regardless of this, Mowery et al. does teach and suggest "a goods delivery system having at least one delivery zone comprising a geographic area comprising a zip group having at

least one zip code, each delivery zone having capacity utilization matrix comprising a plurality of delivery slots", as explained in response to argument (1)-(4) as well as in the art rejections set forth above. Examiner asserts that Mowery et al. also teaches the preamble element of "the goods delivery system providing a respective first potential delivery date, a respective order, and the number of slots the respective order will fill" in at least figures 4 and 5, column 2, lines 40-51, column 3, lines 51-54, column 8, lines 14-29 and 61-67, and column 9, lines 1-13 and 20-25, when it discloses determining an optimized route for a delivery schedule, the route including specific customers, days on which deliveries will occur, and amounts to be delivered based on need and specification from the customer.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beth Van Doren whose telephone number is (703) 305-3882. The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (703) 305-9643. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7687.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

bvd
November 17, 2003

Susanna Diaz
Susanna Diaz
Primary Examiner
A.U. 3623